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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/932,779	08/20/2001	Joshua Browning	H-508	5444

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EXAMINER

LEE, EDMUND H

ART UNIT PAPER NUMBER

1732

DATE MAILED: 04/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/932,779

Applicant(s)

BROWNING ET AL.

Examiner

EDMUND H. LEE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 12-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 12-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/2/04 has been entered.

2. Claims 4 -5 and 15-16 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim 4 limits the solid surface material to an acrylic plastic. The instant specification discloses that solid surface material as known in the art is defined as a material comprised of an acrylic plastic and between 20 and 80 percent by weight aluminum trihydrate filler. The definition of solid surface material as disclosed by the instant specification is extended to the instant claims.

Claim 5 limits the solid surface material to an acrylic plastic and approximately between 20 and 80 percent by weight aluminum trihydrate filler. The instant specification discloses that solid surface material as known in the art is defined as a material comprised of an acrylic plastic and between 20 and 80 percent by weight aluminum trihydrate filler. The definition of solid surface material as disclosed by the instant specification is extended to the instant claims.

Claim 15 limits the solid surface material to an acrylic plastic. The instant specification discloses that solid surface material as known in the art is defined as a material comprised of an acrylic plastic and between 20 and 80 percent by weight aluminum trihydrate filler. The definition of solid surface material as disclosed by the instant specification is extended to the instant claims.

Claim 16 limits the solid surface material to an acrylic plastic and approximately between 20 and 80 percent by weight aluminum trihydrate filler. The instant specification discloses that solid surface material as known in the art is defined as a material comprised of an acrylic plastic and between 20 and 80 percent by weight aluminum trihydrate filler. The definition of solid surface material as disclosed by the instant specification is extended to the instant claims.

3. Claims 1-7 and 12-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "solid surface material" found throughout the claims is confusing because its definition is uncertain. By claim differentiation, claims 4-5 and 15-16 imply a definition of solid surface material as used in claims 1 and 12 broader than the definition given to the term by the instant specification, i.e., the specification defines solid surface material as a material comprised of acrylic plastic and 20-85% by weight of alumina trihydrate filler.

The Markush claim of claim 7 and 18 is improperly written. It is suggested that the following phrase be used: --is selected from the group consisting of countertop, curb, and other assembly feature--.

Clarification and/or correction is required.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1,2,3,12,13 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by O'Kane (USPN 5614145). O'Kane teaches the claimed process as evident by the examples and figs 1-5. O'Kane teaches molding a shower tray and a water basin (see examples). The frame of O'Kane constitutes the claimed retaining ring.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peters et al (USPN 6083339) in view of O'Kane (USPN 5614145). In regard to claim 1, Peters et al teach the basic claimed process including a method of fabricating a fixture having a seamless depression capable of holding a liquid, utilizing a thermoforming

process (figs 6-11); placing a single-layer sheet, having predetermined outer dimensions, of heated, malleable, solid surface material in a vacuum mold having only a female cavity having inner dimensions, said outer dimensions of the single-layer sheet of material being greater than the inner dimensions of the female cavity, the vacuum mold including no injection molding capability (figs 6-11); creating a vacuum within the female cavity of the vacuum mold, the vacuum being a force acting on the single-layer sheet in order to deform the single-layer sheet into a seamless, three-dimensional shape conforming to the female cavity of the vacuum mold (col 11, Ins 30-32, 49-53, and 58-60; figs 6-11); allowing the deformed material of the creating a vacuum step to cool to a substantially rigid shape (figs 6-11); and removing the substantially rigidly shaped material from the vacuum mold (figs 6-11). Peters et al, however, do not teach the vacuum being substantially the only force acting upon the single-layer sheet.

O'Kane teaches molding a water basin by vacuum thermoforming (figs 1-5); placing a single-layer sheet, having predetermined outer dimensions, of heated, malleable, solid surface material in a vacuum mold having only a female cavity having inner dimensions, said outer dimensions of the single-layer sheet of material being greater than the inner dimensions of the female cavity, the vacuum mold including no injection molding capability (figs 1-5); and using a vacuum as substantially the only force acting upon the single-layer sheet in order to deform the single-layer sheet into a seamless, three-dimensional shape (figs 1-5). Peters et al and O'Kane are combinable because they are analogous with respect to vacuum thermoforming a plastic sheet into a basin. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention

was made to use the vacuum mold of O'Kane in place of the compression-vacuum mold of Peters et al in order to reduce mold apparatus complexity and costs. In regard to claims 2-7, Peters et al teaches using the vacuum to deform the single-layer sheet of solid material to substantially its final shape (figs 6-11); providing the deformed material with a flange portion (figs 10-11); using a solid surface material comprising acrylic plastic (col 8, lns 1-9; col 15, lns 45-67; figs 6-11); using a solid surface material comprising acrylic plastic and approximately between 20-85% aluminum trihydrate filler by weight (col 8, lns 1-9; col 15, lns 45-67; figs 6-11); bonding the rigidly shaped material to another component (col 8, lns 1-9; col 15, lns 45-67; figs 6-11); and providing the another component as a countertop, curb, or another assembly feature (col 8, lns 1-9; col 15, lns 45-67; figs 6-11). Peters et al, however, do not teach constraining the single-layer sheet of solid surface material about the flange portion by means of a restraining ring. O'Kane teaches using a retaining ring about the periphery of the single-layer sheet (figs 1-5). Since Peters et al and O'Kane are combinable for the reasons stated above, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the restraining ring of O'Kane in the process of Peters et al in order to reduce the production of wrinkles and white spots during the vacuum thermoforming step.

8. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Kane (USPN 5614145). The above teachings of O'Kane are incorporated hereinafter. O'Kane does not teach bonding the shaped material to another component; and providing the another component as one of countertop, curb, or other assembly feature.

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In regard to bonding the shaped material to another component, it is well-known in the art to connect a shower tray and water basin to another component. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to connect the article of O'Kane to another component in order to provide functionality and aesthetic appeal. In regard to providing the another component as one of countertop, curb, or other assembly feature, it is well-known in the molding art to connect liquid holding containers to countertops, curbs, or other assembly features. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to bond the article of O'Kane to an assembly feature such as a countertop, curb, etc. in order to provide functionality and aesthetic appeal.

9. Claims 12-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peters et al (USPN 6083339) in view of O'Kane (USPN 5614145). In regard to claim 12, Peters et al teach the basic claimed process including a method of fabricating a fixture having a seamless depression capable of holding a liquid, utilizing a thermoforming process (figs 6-11); sizing a single-layer sheet of solid surface material having predetermined outer dimensions (figs 6-11); heating and placing the sized, single-layer sheet in a vacuum mold having a cavity with inner dimensions, said outer dimensions of the single-layer sheet of material being greater than the inner dimensions of the cavity, the vacuum mold including no injection molding capability (figs 6-11); creating a vacuum within the cavity of the vacuum mold in order to deform the single-layer sheet into a seamless, three-dimensional shape, the vacuum being a force acting on the single-layer sheet to cause the deformation (col 11, lns 30-32, 49-53, and 58-60;



figs 6-11); allowing the deformed material of the creating a vacuum step to cool to a substantially rigid shape (figs 6-11); and removing the substantially rigidly shaped material from the vacuum mold (figs 6-11). Peters et al, however, do not teach the vacuum being substantially the only force acting upon the single-layer sheet. O'Kane teaches molding a water basin by vacuum thermoforming (figs 1-5); placing a single-layer sheet, having predetermined outer dimensions, of heated, malleable, solid surface material in a vacuum mold having a cavity with inner dimensions, said outer dimensions of the single-layer sheet of material being greater than the inner dimensions of the female cavity, the vacuum mold including no injection molding capability (figs 1-5); and using a vacuum as substantially the only force acting upon the single-layer sheet in order to deform the single-layer sheet into a seamless, three-dimensional shape (figs 1-5). Peters et al and O'Kane are combinable because they are analogous with respect to vacuum thermoforming a plastic sheet into a basin. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the vacuum mold of O'Kane in place of the compression-vacuum mold of Peters et al in order to reduce mold apparatus complexity and costs. In regard to claims 2-7, Peters et al teaches using the vacuum to deform the single-layer sheet of solid material to substantially its final shape (figs 6-11); providing the deformed material with a flange portion (figs 10-11); using a solid surface material comprising acrylic plastic (col 8, lns 1-9; col 15, lns 45-67; figs 6-11); using a solid surface material comprising acrylic plastic and approximately between 20-85% aluminum trihydrate filler by weight (col 8, lns 1-9; col 15, lns 45-67; figs 6-11); bonding the rigidly shaped material to another component

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(col 8, lns 1-9; col 15, lns 45-67; figs 6-11); and providing the another component as a countertop, curb, or another assembly feature (col 8, lns 1-9; col 15, lns 45-67; figs 6-11). Peters et al, however, do not teach constraining the single-layer sheet of solid surface material about the flange portion by means of a restraining ring. O'Kane teaches using a retaining ring about the periphery of the single-layer sheet (figs 1-5). Since Peters et al and O'Kane are combinable for the reasons stated above, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the restraining ring of O'Kane in the process of Peters et al in order to reduce the production of wrinkles and white spots during the vacuum thermoforming step.

10. Claims 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Kane (USPN 5614145). The above teachings of O'Kane are incorporated hereinafter. O'Kane does not teach bonding the shaped material to another component; and providing the another component as one of countertop, curb, or other assembly feature. In regard to bonding the shaped material to another component, it is well-known in the art to connect a shower tray and water basin to another component. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to connect the article of O'Kane to another component in order to provide functionality and aesthetic appeal. In regard to providing the another component as one of countertop, curb, or other assembly feature, it is well-known in the molding art to connect liquid holding containers to countertops, curbs, or other assembly features. Thus, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to bond the article of O'Kane to an assembly feature such as a countertop, curb, etc. in order to provide functionality and aesthetic appeal.

11. Applicant's arguments with respect to claims 1-7 and 12-18 have been considered but are moot in view of the new ground(s) of rejection.

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ford (USPN 6110313) teaches the state of vacuum thermoforming a solid surface material.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDMUND H. LEE whose telephone number is 571.272.1204. The examiner can normally be reached on MONDAY-THURSDAY FROM 9AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on 571.272.1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EDMUND H. LEE  
Primary Examiner  
Art Unit 1732

  
4/12/04

EHL